REMARKS

Claims 1 and 3-7 are all the claims pending in the Application. By this Amendment,

Applicant amends claim 1 to include the features of claim 2, thereby canceling claim 2.

Applicant also editorially amends claim 3 for conformity with the amendment to claim 1.

Applicant further amends claim 5 to further clarify the invention and adds claims 6 and 7, which

are supported throughout the specification *e.g.*, page 7, lines 24 to 32 of the specification.

Summary of the Office Action

In this Final Office Action, all of the previous rejections have been maintained (claims 1-

5 are rejected under 35 U.S.C. § 102(e)) and claim 5 is now also objected to for a minor

informality and is rejected under 35 U.S.C. § 112, first paragraph.

Objection to Claim 5 and Rejection of Claim 5 under 35 U.S.C. § 112, first paragraph

The Examiner objected to claim 5 for a minor informality and rejected claim 5 under 35

U.S.C. § 112, first paragraph, for failing to define the term "k" (*see* page 2 of the Office Action).

Applicant respectfully requests the Examiner to withdraw this objection and rejection of claim 5

in view of the self-explanatory claim amendments being made herein.

Prior Art Rejections

Claims 1-5 stand rejected under 35 U.S.C. 102(e) as allegedly being anticipated by

Vasudevan. It is respectfully submitted that the remaining pending claims 1 and 3-5 are

patentable over Vasudevan for at least the following reasons.

Vasudevan does not disclose all of the claim 1. For example, Vasudevan does not teach

the claimed method of constructing a representation of the geographical distribution of traffic for

a cellular radio network including dividing each cell of said cellular network into a set of areas

using information on handovers boundaries obtained from said cellular network, determining a

traffic value for each of said areas, and determining a representation of the geographical

distribution of the traffic from said traffic values, wherein the traffic value of an area depends on

an outgoing handover probability from said area to a neighboring cell. Neither Vasudevan's bins

nor Vasudevan's sectors can correspond to the recited "areas."

Bins

As an initial matter, Vasudevan's bins cannot correspond to the recited areas. In

Vasudevan's wireless network, the cells are divided into "bins" of a fixed size. For example,

these bins can be 100m x 100m. *See* (for example) Vasudevan at Fig. 3. The bins are then

classified based on several factors, including handovers boundaries (*See* Vasudevan at 3:11-29)

and traffic (*See* Vasudevan at 4:32-53).

However, Vasudevan's cells are not divided into bins "using information on handovers

boundaries obtained from the cellular network." Instead, the cell is first divided into the bins,

and then the bins are merely classified based in-part on handover information. As such,

Vasudevan's "bins" cannot correspond to the recited "areas."

Sectors

Moreover, Vasudevan's sectors cannot correspond to the recited areas. Although

Vasudevan discloses that the cells of the cellular network can be divided into sectors, there is no

disclosure that Vasudevan's cells are divided into sectors "using information on handovers

boundaries obtained from said cellular network." *See*, for example, Vasudevan at Fig. 23a-c & 12:36-48.

Also, Vasudevan's reduced "sectors" (i.e., after cell-splitting) cannot correspond to the recited "areas" at least because the geographical distribution of traffic for the cellular network is not determined from traffic values for each of the reduced sectors.

As shown in, for example, Figs. 23a-c of Vasudevan, the size of a cell can be reduced by reducing the transmitting power of a Base Transceiver Station ("BTS"). Vasudevan refers to this reduction of an existing cell size "cell-splitting." In cell-splitting, the transmitted power of a cell site is reduced in order to reduce the traffic of that cell site. *See* Vasudevan at 9:8-17. By reducing the transmitted power, the cell size can be reduced until the cell traffic of the cell is below a maximum traffic threshold value. The amount of reduction of the cell transmission power, and therefore the cell size, needed to reduce the cell traffic below the threshold value are calculated based on traffic information that has been determined based on a precise bin-to-bin mobility estimation algorithm. *See* Vasudevan at 7:19-37.

Although the size of the cell can also be reduced on a sector basis (for example, in Fig. 23c the size of only one of the three cell sectors is reduced), the reduced "sectors" cannot correspond to the recited "areas" at least because the determination of geographical distribution of traffic is not from the traffic values of the reduced sectors. Instead, the distribution of traffic has already been determined based on the geographical distribution of traffic values of the bins. The reduced "sectors" are merely the result of a precise geographical distribution of the traffic values of the bins.

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In sum, Vasudevan does not disclose or suggest construing areas based on their handover

boundaries. In Vasudevan, the cells are divided into bins of fixed shape and size, the boundaries

of the areas <u>do not stem from boundaries of outgoing handovers that are themselves derived from

boundaries of entering handovers</u>. That is, in Vasudevan, the boundaries are geometrically

homogenous (bins and sectors) and the boundaries <u>are not data-driven</u>.

For at least these exemplary reasons, independent claim 1 is patentably distinguishable

from Vasudevan. Claims 3-5 are patentable at least by virtue of their dependency on claim 1.

<u>New Claims</u>

In order to provide more varied protection, Applicant adds claims 6 and 7. Claim 6 is

patentable at least by virtue of its dependency on claim 1 and claim 7 is patentable at least

because it recites analogous features to the features argued above with respect to claim 1 and as

such, analogous arguments are submitted to apply with equal force herein.

<u>Conclusion</u>

In view of the above, reconsideration and allowance of this application are now believed

to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is

kindly invited to contact the undersigned attorney at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. Appln. No. 09/882,018
Attorney Docket No.: Q64966

The USPTO is directed and authorized to charge all required fees, except for the Issue

Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any

overpayments to said Deposit Account.

Respectfully submitted,

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